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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/263,918 03/05/99 SKARFNESS

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TM02/0810

EXAMINER

HYUN, S

ART UNIT

PAPER NUMBER

2663

DATE MAILED:

08/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SR

Office Action Summary

Application No.
09/263,918

Applicant
Skarpness et al

Examiner
Soon-Dong Hyun

Art Unit
2663



— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Mar 26, 2001
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 5, and 7-16 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5, and 7-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 20) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 5, and 7-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al (U.S. Patent No. 5,796,735) in view of Rostoker et al (U.S. Patent No. 5,623,494).

Regarding claims 1 and 4, Miller et al (Miller) discloses a method for segmenting of CS-PDUs (data) to transmit under an ATM standard. See col. 8, line 21-col. 12, line 65. A host memory (280) of a host computer receives and stores the CS-PDUs to send, i.e., the step of receiving. A SAR circuit (201) reads 48 bytes of the CS-PDUs from the host memory each cycle to generate a plurality of ATM cells (see col. 11, lines 64-66), i.e., the step of segmenting. A transmit ready FIFO (260a) buffers the plurality of the ATM cells (see col. 12, lines 19-21), i.e., the step of buffering. The host computer (CPU of claim 4) shapes the buffered ATM cells by adding null cells and absorbing a latency (see col. 12, lines 46-65), i.e., the step of shaping. A PHY 205 transmits the plurality of ATM cells on a network (211), i.e., the step of transmitting.

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However, Miller differs from the present application in that Miller uses the segmentation and reassembly (SAR) circuit for implementing the SAR function while the present application uses a software module in a CPU for that.

Rostoker et al (Rostoker) discloses a programmable CPU (52 of FIG. 4) implementing the SAR function with a firmware (a software module). See col. 9, line 39-col. 10, line 5.

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the concept of Rostoker using the CPU with the firmware into Miller to take advantage of using a programmable software instead of a non-flexible hardware.

Regarding claims 5 and 14-16, Miller discloses the software driver (a program storage device) which runs on the host computer provides control of the operation of the SAR circuit 201 as discussed for the claims 1 and 9. Therefore, the above processing of the ATM cells are controlled according to the program's instructions in a plurality of code sections (at least a first, a second and a third code section of the software driver) to the CPU of the computer.

However, Miller differs from the present application in that Miller uses the segmentation and reassembly (SAR) circuit for implementing the SAR function while the present application uses a software module in a CPU for that.

Rostoker et al (Rostoker) discloses a programmable CPU (52 of FIG. 4) implementing the SAR function with a firmware (a software module). See col. 9, line 39-col. 10, line 5.

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Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the concept of Rostoker using the CPU with the firmware into Miller to take advantage of using a programmable software instead of a non-flexible hardware.

Regarding claims 7, Miller further discloses a partial error control cyclic redundancy code (CRC) checksum to keep track of the CS-PDU's integrity. See col. 7, lines 9-11.

Regarding claim 8, a padding procedure is inherently required to keep a payload section in each cell 48 bytes when the data is not sufficient to fill the payload section.

Regarding claims 9 and 10, Miller discloses a method for reassembling of a CS-PDU with a plurality of ATM cells under an ATM standard. See col. 6, line 6- col. 8, line 20. A PHY (205) receives the CS-PDU comprising the plurality of ATM cells from a network (212) and the received ATM cells are written into a RX FIFO 271 (an input buffer), i.e., the function of receiving in the claim is implemented. An SAR circuit (201) reads the ATM cells from the RX FIFO to retrieve payload portions from the plurality of the ATM cells to corresponding the CS-PDU (a payload data unit) belonging to a combination VPI/VCI until all ATM cells in the CS-PDU are received (see col. 7, lines 14-20), the function of retrieving in the claim is implemented. Each CS-PDU has a header and a trailer which provide identification, size and error control (see col. 2, lines 16-22) and an SAR-PDU has 10 bit CRC for error checking (see col. 2, lines 31-34). Therefore, checking a CRC to determine whether data was received without error at a receiving end and dropping the payload unit when the CRC indicates an error are inherent procedures, i.e., the function of checking and dropping in the claims are implemented.

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However, Miller differs from the present application in that Miller uses the segmentation and reassembly (SAR) circuit for implementing the SAR function while the present application uses a software module in a CPU for that.

Rostoker et al (Rostoker) discloses a programmable CPU (52 of FIG. 4) implementing the SAR function with a firmware (a software module). See col. 9, line 39-col. 10, line 5.

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the concept of Rostoker using the CPU with the firmware into Miller to take advantage of using a programmable software instead of a non-flexible hardware.

Regarding claim 11, Miller further discloses a host memory (280) for reassembling (see col. 7, lines 35-48).

Regarding claim 12, refer to the discussion for the claim 7.

Regarding claim 13, Miller further discloses the end of a CS-PDU, i.e., an end of payload data unit marker. See col. 7, lines 49-52.

Response to Arguments

3. Applicant's arguments filed 3/26/2001 have been fully considered but they are not persuasive.

The applicant argues that Miller teach a hardware for the SAR functions instead of a software module implemented on a CPU. As discussed above, it would have been obvious to one having ordinary skill in the art to incorporate the concept of Rostoker using the CPU with the

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firmware into Miller to take advantage of using a programmable software instead of a non-flexible hardware, i.e., Miller + Roster teaches the aspect of the claimed invention. Therefore, the examiner believes that the claim rejection is proper.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon-Dong Hyun whose telephone number is (703) 305-4550. The examiner can normally be reached on Monday-Friday from 8:30 A.M. to 5:30 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen, can be reached on (703) 308-5340.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

6. Any response to this final action should be mailed to:

Box AF

Commissioner for Patents

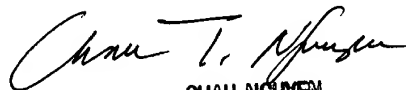
Washington, D.C. 20231

Or faxed to: 703-872-9314 for formal communications intended for entry with a label of "EXPEDITED PROCEDURE" for informal or draft communications with a label of "PROPOSED" or "DRAFT" (attn: Art Unit 2663, Soon-Dong Hyun).

fy

S. Hyun

8/8/2001



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